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Recipients of grant money promote environmental awareness

By Cindy Schafer
Office of the Secretary

PRIDE—Personal Responsibility in a Desirable Environment—has long been associated with the cleanup of illegal dumps and trash. Now, Bluegrass PRIDE is taking the definition of “a desirable environment” another step further.



In January, Bluegrass PRIDE presented its first round of education grants to 22 Kentucky schools and nonprofit education groups. The grant money, up to \$1,500, will be used to create outdoor classrooms, butterfly gardens and aquatic habitats, study local creeks and streams, and develop environmental education activities.

Among the recipients, the Anderson County Early Childhood Center will use the money to add a 40-foot stream to an existing learning garden. The stream will be home to native fish, reptiles and other aquatic species.

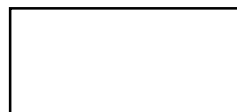
Students at Mary G. Hogsett Elementary in Boyle County will work with their community to design and create a riparian buffer zone. This project will help students and community residents become more environmentally aware of the impacts of human interaction, while improving water quality in their local waterways.

Bluegrass PRIDE was created last summer by U.S. Rep. Ernie Fletcher and the late General James E. Bickford, Natural Resources and Environmental Protection Cabinet secretary, and includes 18 central Kentucky counties.

Upcoming issues of *Land, Air & Water* will highlight award recipients and the benefits their education projects have brought to community students and citizens.

Correction

A short article on page 20 of the winter issue misidentified the name of the park in Frankfort where a tree planting ceremony took place. The name of the park should have read Cove Spring Park.



Online

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www.environment.ky.gov/nrepc/landairwater.htm

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The flowering Redbud (*Cersis canadensis*) was photographed in the Carter Caves State Resort Park in Carter County, Ky. Redbuds are small trees, common throughout the state, that flower in April before the leaves expand. Photograph provided by Merle Wasson, Division of Waste Management.

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Kentuckians voice concerns about the environment

Kentuckians are greatly concerned about the environment, according to a nonscientific poll conducted by the Kentucky Environmental Quality Commission (EQC). The EQC conducted the public opinion poll via its Web site from June to December 2002 to provide Kentuckians an opportunity to express their views and concerns to state officials on environmental issues.

Six questions were asked ranging from community environmental concerns to effectiveness of environmental laws and regulations. A total of 1,600 people responded to the poll. The survey also provided an opportunity to submit individual concerns to the EQC. More than 250 comments were received.

The poll revealed 96 percent of the people that responded were concerned about environmental issues in their communities and the state. Of this total, 77 percent said they were very concerned and 19 percent said they were somewhat concerned. Only three percent expressed little or no concern about environmental issues.

Environmental quality has improved, according to poll

Kentuckians are fairly optimistic about the state of Kentucky's environment. Six out of 10 Kentuckians (63 percent) taking the poll indicated that environmental quality in Kentucky has become better during the past 10 years, indicating that efforts to protect the environment are indeed making a difference. Twenty-one percent of the respondents believe environmental quality has actually declined and another 14 percent said that there has been no change in environmental quality during the past decade.

Kentuckians divided on how best to protect the environment

While Kentuckians overwhelmingly expressed strong concern about the environment, they are almost equally divided on how best to protect it. The EQC poll reveals that 38 percent of the respondents believe environmental laws are too strict. Counter to that, 30 percent of the respondents said that environmental laws are not strict enough. Another 30 percent responded that environmental laws and regulations were appropriate.

Water pollution tops list of issues

When asked to rank environmental problems in the state, Kentuckians listed water pollution as the top environmental issue facing the state followed by the

safety of drinking water. Other issues ranked in order of importance were air pollution, dumping of trash, loss of natural resources, energy and coal mining.

Enforcement and education ranked as greatest need

Kentuckians ranked stronger enforcement of environmental laws and regulations as the greatest need to improve environmental quality in the state. Other needs ranked in order of importance were environmental education, stronger laws and regulations, greater industry responsibility, additional funding for state environmental programs, greater individual responsibility and better public access to information.

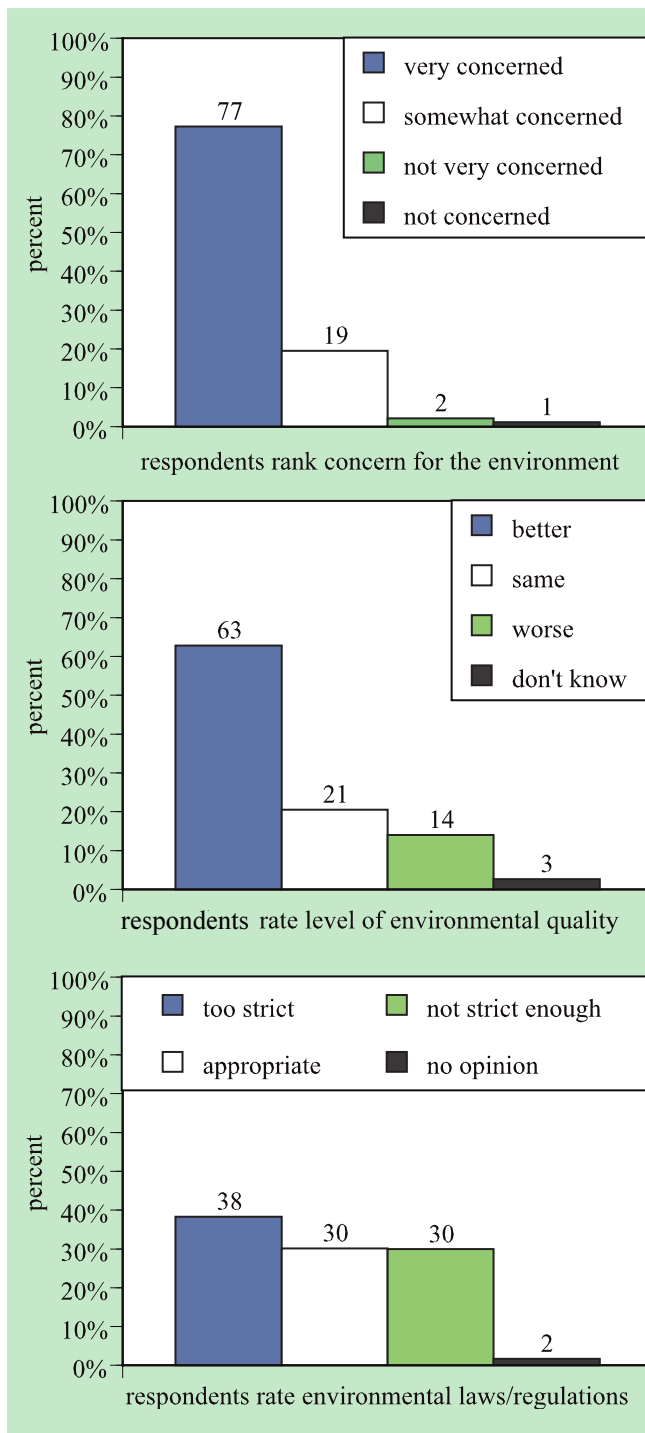
Sprawl and land use issues dominate concerns

The EQC survey generated numerous comments in the area of urban sprawl. Fifty-six percent of Kentucky's population now live in an

urban setting. The impacts of congestion, development and loss of green space were among a number of land-use issues expressed.

Kentuckians want more recycling opportunities

Another leading issue among



respondents was waste. The state’s recent campaign to eliminate open dumps has elevated awareness of this issue among Kentuckians. Many respondents expressed their concern about the problem of roadside litter and illegal dumping, as well as the need for more recycling.

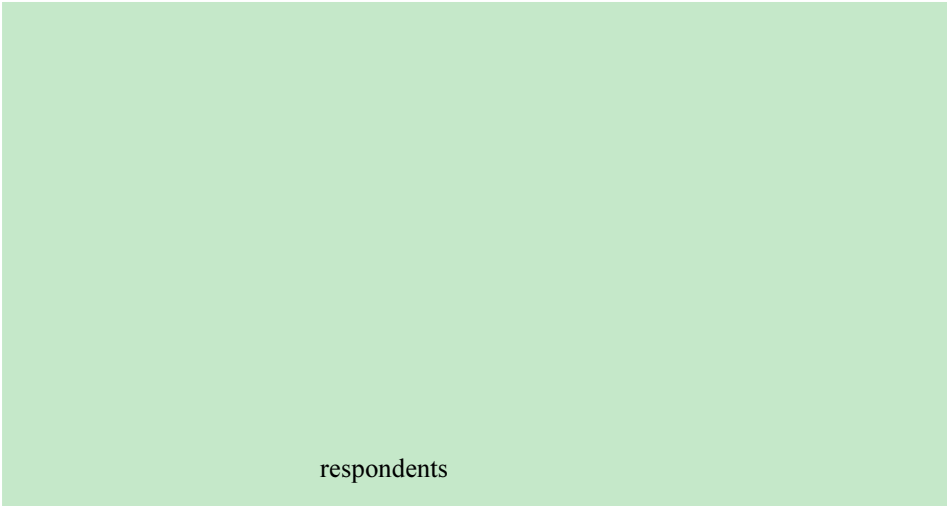
More inspectors and public involvement needed

A number of opinions were also received regarding the state’s environmental programs. The remarks included the need for more environmental inspectors to monitor and respond to problems. Kentuckians also want additional opportunities to be involved in solving environmental problems that affect them. Environmental education was seen as key to building an informed and involved citizenry.

A call for energy alternatives and conservation

Several comments were received expressing the need for a balanced approach to energy that reduces our dependence on fossil fuels and foreign oil by focusing on conservation and increased use of renewable sources of power. Comments also reveal that there is heightened awareness of the universal nature of environmental problems in Kentucky, including the issue of global warming and overpopulation.

The full report is available at the EQC Web site at www.kyeqc.net. 



What the public is saying about Kentucky’s environment

Quotes from the EQC public opinion poll on the environment, 2002.

I keep hearing everyone in Kentucky should have clean drinking water, why don’t all of us have it?

Kentucky should make more efforts for sustainable energy, sustainable living.

I am concerned about the impact of pesticides/herbicides, including mosquito spraying across the state.

I would like to express my worries about the ozone layer and global warming.

I think education is the key.

I am concerned about urban sprawl and the abandonment of downtowns in most of our communities.

The lack of statewide garbage pickup and recycling availability and participation are among my concerns.

In my lifetime we have gone from being able to drink water from any creek to not being able to walk or swim in about all waterways ... somewhere somebody failed badly.

The forest is our future, encourage more responsible logging practices.

We need a more multimedia approach to solving environmental problems.

I am deeply concerned about the proposed transportation routes for radioactive waste through Kentucky.

As a volunteer, I preach about these issues at schools. As a mother, I teach my family to be responsible and to become an active part of the solution.

When we think of recycling, the things that quickly come to mind are aluminum cans, newspapers and milk jugs. However, recycling isn't just for household items. Land can also be recycled. Environmentally contaminated properties can be cleaned up and put back into productive use. This "land recycling" is the goal of Kentucky's brownfields program.

Brownfields are tracts of land that were once developed for industrial or commercial use but are now environmentally contaminated and abandoned. While often abandoned factories, they can also be former dry cleaners, vacant gas stations, illegal methamphetamine (drug) labs, old dumps and mine-scarred lands. In fact, the property doesn't even have to be contaminated at all. If redevelopers avoid purchasing a property because of a suspicion of contamination, that property is deemed a brownfield.

One of the chief issues that discourages the redevelopment of brownfields is the legal liability that accompanies ownership of contaminated property. In 2001, the Kentucky General Assembly enacted the Voluntary Environmental Remediation Act (VERA), a law designed to promote voluntary cleanup and redevelopment of properties suspected of environmental contamination.

VERA increases liability protection for participants of the program. The law provides a strong incentive for industry to redevelop tainted prime real estate and promotes economic development and job creation through the construction of new residential, commercial and industrial facilities. VERA also furthers the public purposes of protecting human health, safety and the environment.

The University of Louisville's Papa John's Stadium is located on what used to be the old CSX railroad yard in Louisville. Photo by Keith Sims



VERA helps revitalize prime development sites

By Herb Petitjean
Division of Waste Management

Louisville's trolley barn is being cleaned up under the city's brownfield pilot program. The abandoned facility will become the Kentucky Center for African American History and be completed in 2005.

Photo by
Susan Mallette



Since the enactment of VERA, the Natural Resources and Environmental Protection Cabinet (NREPC) has attempted to develop a set of regulations for the program. This was especially challenging since the act does not differentiate between true brownfields and other environmental cleanups. Another difficulty was the never-ending struggle to strike the proper balance between protecting human health and the environment and addressing economic concerns.

Last summer, Gov. Paul Patton established a state Brownfields Task Force that brings the cabinet together with representatives from the Economic Development Cabinet, the Commission

for Small Business Advocacy, Office of the Governor, Kentucky Chamber of Commerce, Kentucky League of Cities and Kentucky Resources Council to

facilitate discussion of brownfield issues, such as the regulation, among the interest groups.

Also last summer, the cabinet filed its proposed set of regulations with the Legislative Research Commission's Administrative Regulation Review Subcommittee. However, due to continuing opposition by industry representatives, Hank List, NREPC secretary, withdrew the regulations from consideration in January. Had the cabinet submitted its proposed regulations and the subcommittee voted them down, it would have effectively killed the regulations for the 2003 session. Consequently, state law requires the cabinet to wait two years to promulgate amended regulations, unless the regulations are substantially different from the original package.

The cabinet continues to meet with stakeholders to develop a new regulation package that will have broader support.

Though VERA is currently without regulations, the cabinet is accepting applicants for the program and working with them on individual bases to remediate properties.

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Round table will build awareness and bring solutions to watershed problems

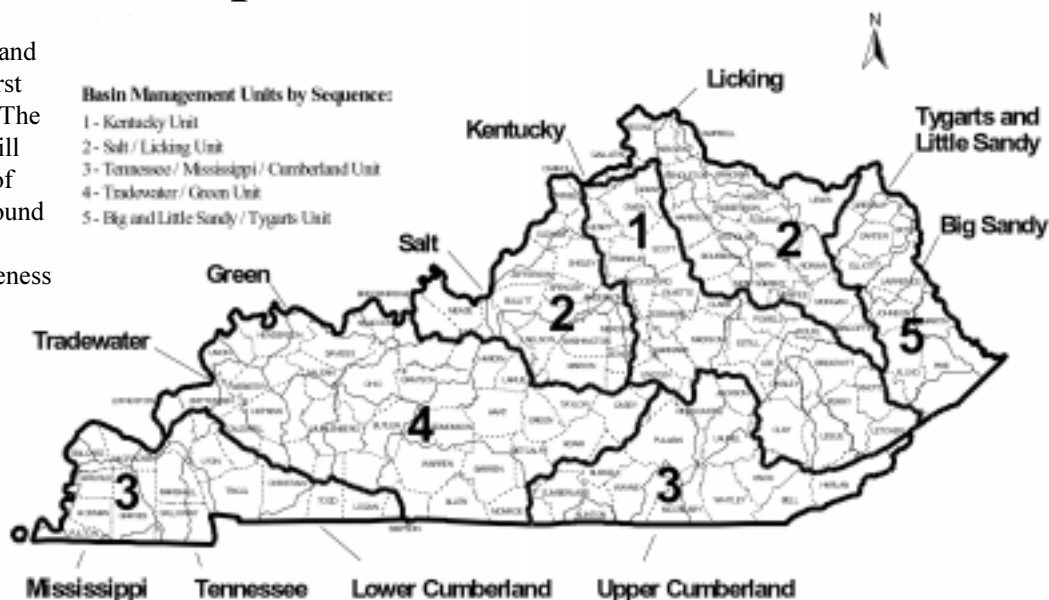
A diverse group of stakeholders and leaders has been busy planning the first watershed round table for Kentucky. The Kentucky Watershed Round Table will build on the experience and success of five years of Southeast Watershed Round Tables.

A round table builds better awareness of watersheds and watershed issues, facilitates a dialogue among many stakeholder groups and ultimately serves to build trust and forge partnerships that enhance watershed initiatives. It is an opportunity for citizens and citizen groups, federal, state and local government agencies and officials, business and industry representatives to sit down together and discuss problems and potential solutions in their watersheds.

While still in the planning stages, the Kentucky round table will have informational plenary sessions and plenty of time for smaller breakout sessions around particular topics and targeted to smaller watersheds. Perhaps the greatest challenge thus far has been in selecting the topics to cover during the round table. Topics that seem to have the most interest to the

Basin Management Units by Sequence:

- 1- Kentucky Unit
- 2- Salt / Licking Unit
- 3- Tennessee / Mississippi / Cumberland Unit
- 4- Tradewater / Green Unit
- 5- Big and Little Sandy / Tygarts Unit



Watershed graphic provided by Lee Colten, Division of Water

planners include storm water permits, planning and zoning (smart growth), agriculture and drinking water supplies, as well as watershed basics.

The round table will be held at the Holiday Inn North in Lexington, Ky., Aug. 19-20, 2003. Mark those dates on

your calendar and make plans to attend and participate.

If you have ideas and would like to be heard, contact Lee Colten, Kentucky Division of Water, at (502) 564-3410, or Judith Petersen, Kentucky Waterways Alliance, at (270) 524-1774.



NREPC provides easy access to helpful publications

By Julie Smither
Division of Energy

How's the water quality of the stream in your neighborhood? Are you having some trees logged on your property, but you want to ensure it's done right? Can your grandmother's utility bills be reduced? The Natural Resources and Environmental Protection Cabinet Publications Database has the answers you need.

Information related to air, water, waste and recycling, energy conservation, forestry, surface mining and other natural resource issues is now available online in more than 400 publications at <http://www.environment.ky.gov/publications.htm>.

The Division of Forestry's *Timber Harvesting Equipment and the Kentucky Forest Conservation Act* brochure is used by private landowners and farmers and illustrates the different types of timber harvesting equipment used in harvesting operations. Improper timber harvesting can cause ruts and skid trails that can potentially impact the area's water quality.

Teachers can easily locate classroom materials appropriate to their grade level. Newly elected judges-executive can learn what they need to know to take care of natural resource issues in their counties.

Want an informative video to show your students or club members? *The Big Sandy: Clean Water Begins with You* is a video on nonpoint source pollution

impacts to the river. Other technical and nontechnical videos are also available. Reports and publications on wetlands, water quality assessments of Kentucky streams and rivers, groundwater, water conservation and the Kentucky Wild Rivers program are easily accessible.

Take advantage of many helpful resources now available at your fingertips by visiting the publications database.



It's no secret that in recent years leaders from across Kentucky have engaged in heated debate over solid waste issues. Local officials, business lobbyists, even state legislators, have agreed that Kentucky has a problem. The challenge was finding a solution that provided funding to counties.

The debate lingered during the last three sessions of the General Assembly over who should foot the bill for cleaning up Kentucky. Some people felt that container deposits should be implemented to provide a revenue stream to address solid waste issues. Others believed the funding should come from existing state taxes. The 2002 General Assembly passed solid waste legislation designed to assist counties and cities with cleaning up

roadside litter, illegal dumps and improperly closed landfills.

Funding for the new law, which became effective in January 2003, will come from a \$1.75 environmental fee increase for each ton of waste disposed in municipal solid waste disposal facilities in Kentucky. In addition, the legislature diverted \$2.5 million annually from both the state Highway Construction Contingency Fund and the Road Fund. The legislature also authorized a \$25 million bond sale.

The revenue generated from those sources will be deposited into the newly created Kentucky PRIDE Fund, which was expected to receive as much as \$32.5 million in the first year (FY 03) for counties to tackle solid waste issues. Ongoing revenue for following years would reach nearly \$15 million annually. Funding, however, will not reach expected levels this year because the Executive Branch was unable to issue a \$25 million bond sale without an approved budget.

Even so, the new solid waste law, commonly referred to as House Bill (HB) 174, has started to generate cleanup

money for counties. The Kentucky Department for Environmental Protection's (DEP) Resource Conservation and Local Assistance Branch (RCLA) has started distributing "litter checks" to counties that have complied with all the requirements outlined in HB 174. Essentially, counties and cities must enter into an agreement with the Natural Resources and Environmental Protection Cabinet (NREPC) to conduct roadside litter cleanup activities and provide garbage service to citizens.

"Counties must conduct three litter cleanups per year and cities have to conduct at least two," said Sara Evans, RCLA Branch manager. "We currently have contracts with 53 counties. We send out the grant money once we receive the signed agreements from the county or city declaring that they will conduct the required cleanups and report the details of their litter expenditures."

Evans said the litter funding comes from the \$5 million reallocated from the Department of Transportation. Since the

Continued on page 8

Solid waste subsidy for a cleaner environment

By Matt Hackathorn
Division of Waste Management



TOP LEFT: This illegal dump on Barker Branch Road in southeastern Powell County is an example of how irresponsible people can turn a beautiful area into an eyesore. Photo by Richard Thomas. **LEFT:** "Litter checks" are distributed to eligible counties that offer garbage collection service and have entered into agreement with the NREPC on cleanup activities. Photo by Cindy Schafer. **ABOVE:** Equipment shoves trash into designated areas of this Valley View Landfill in Trimble County. Photo by Merle Wasson

In September 2001, representatives from the Department for Surface Mining Reclamation and Enforcement (DSMRE) attended a meeting of state and federal agency representatives hosted by the Kentucky Geological Survey to discuss the creation of an information system for accessing information on Kentucky mine maps. This meeting was convened in response to hindrances in obtaining mine maps in the aftermath of the Martin County slurry pond failure that occurred in October 2000. Participants agreed on the need to enhance data sharing and access to underground mine information for more effective risk mitigation purposes.

As a result of the meeting, Gov. Paul Patton's office directed the Governor's Office for Technology (GOT) to form teams to explore legal and technical solutions for providing mine map information to government personnel, as well as the general public. Natural Resources and Environmental Protection Cabinet (NREPC) team members include Iris Skidmore, Office of Legal Services, and DSMRE's Amy Covert, Daryl Hines and Christina Rice, along with Ken Bates, Office of Information Services GIS Branch.

The legal team proposed changes to Kentucky law regarding accessibility of mine maps. During the 2002 legislative session, a law was successfully modified to permit public access to closed or abandoned mine maps held by the Kentucky Department of Mines and

Accessing Kentucky mine map information

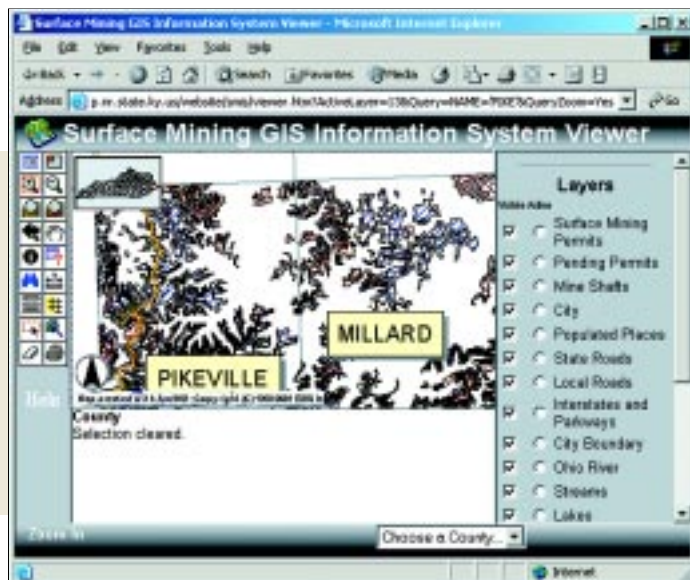
This article was previously printed in the *Kentucky Geology*.

Additional information provided by Christina Rice

Department for Surface Mining Reclamation and Enforcement

A prototype of the web-based coal mine mapping information system displays mining within the coal seams underlying the Pikeville and Millard topographic quadrangles in Kentucky.

Web image and photograph provided by DSMRE



Minerals (KDMM). During this year's legislative session, Senate Bill 165 was introduced and passed allowing the public access to KDMM's active mine maps as well.

The technical team reviewed existing information systems and holdings of the KDMM, Kentucky DSMRE, Revenue Cabinet, U.S. Office of Surface Mining (OSM) and the Kentucky Geological Survey. A proposal was made to develop a Web-based information system that would consolidate access to all this information in an interactive graphical map service, and a prototype was developed for a small area.

The DSMRE, as lead agency for the project, has obtained a matching \$30,000 grant from OSM to purchase computer workstations and a large format scanner to scan and georeference mine maps. Agency staff have already begun scanning maps of underground mines that are submitted annually to the department, as well as mining and reclamation plan maps that are

submitted with applications for surface coal mining permits. The resulting digital images are presently available on the DSMRE's Web site http://www.surfacemining.ky.gov/gis/mining_maps.htm. Additional funding is being sought from state and federal agencies to implement the system.

Members of the technical and legal teams recently presented their findings to Hank List, NREPC secretary, and representatives from the Governor's Office, Public Protection and Regulation Cabinet, the Revenue Cabinet and the GOT. Participants agreed that enhanced access to coal mine maps would further each cabinet's mission to better serve the people of the Commonwealth and promised their full support for the project. "I am proud that our agency is a partner in an initiative where multiple entities successfully work together to enhance mine safety in Kentucky," asserts Carl Campbell, commissioner of the DSMRE.

LEFT: DSMRE GIS staff, Christina Rice (sitting), along with Daryl Hines and Amy Covert, plot an underground coal mine map needed by agency engineers for a special study.



Tire Amnesty—Round Two

By Matt Hackathorn
Division of Waste Management

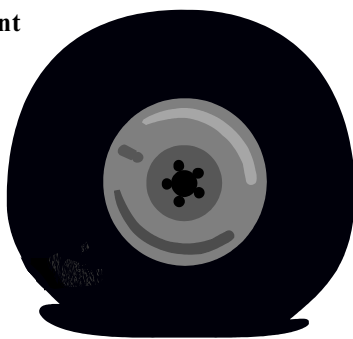
Time to “get rubber”—to your county’s Tire Amnesty drop off point. The Kentucky Department for Environmental Protection (DEP) will host the state’s second Tire Amnesty to promote the proper disposal of waste tires beginning this spring. The program offers citizens an opportunity to dispose of their unwanted tires at no cost.

Tire Amnesty will make its way across the state and visit every county of Kentucky over the next three years.

The 2002 Kentucky General Assembly voted to offer Kentuckians a second Tire Amnesty following the success of the original program that ran from 1999 through 2001. The original program accounted for the proper disposal of more than six million waste tires.

Tire Amnesty is funded by a state tax requiring tire retailers to collect a \$1 fee on all new replacement motor vehicle tires sold. Retailers may retain 5 cents to offset administrative costs, but the remaining balance is required to go in the Waste Tire Trust Fund, an endowment established to provide funding for management of waste tires.

For more information regarding Tire Amnesty contact your local solid waste coordinator, the state’s Tire Amnesty representatives, Fred.Kirchhoff@mail.state.ky.us and Todd.McCoy@mail.state.ky.us, or phone (502) 564-6716.



2003 Tire Amnesty schedule*

Spring 2003

Cumberland Valley Area Development District (ADD):
Counties include Bell, Clay, Harlan, Jackson, Knox, Laurel, Rockcastle, and Whitley.

KIPDA ADD: Counties include Bullitt, Henry, Oldham, Shelby, Spencer and Trimble.

Northern Kentucky ADD: Counties include Carroll, Gallatin, Grant, Owen and Pendleton.

Fall 2003

Green River ADD: Counties include Daviess, Hancock, Henderson, McLean, Ohio, Union and Webster.

Buffalo Trace ADD: Counties include Bracken, Fleming, Lewis, Mason, and Robertson.

FIVCO ADD: Counties include Boyd, Carter, Elliott, Greenup and Lawrence.

Gateway ADD: Counties include Bath, Menifee, Montgomery, Morgan and Rowan.

Spring 2004

Bluegrass ADD:

Counties include Anderson, Boyle, Bourbon, Clark, Estill, Franklin, Garrard, Harrison, Jessamine, Lincoln, Madison, Mercer, Nicholas, Powell, Scott and Woodford.

Purchase ADD:

Counties include Ballard, Calloway, Carlisle, Fulton, Graves, Hickman, Marshall and McCracken.

Fall 2004

Barren River ADD: Counties include Allen, Barren, Butler, Edmonson, Hart, Logan, Metcalfe, Monroe, Simpson and Warren.

Big Sandy ADD: Counties include Floyd, Johnson, Magoffin, Martin and Pike.

Kentucky River ADD: Counties include Breathitt, Knott, Lee, Leslie, Letcher, Owsley, Perry and Wolfe.

Spring 2005

Lake Cumberland ADD: Counties include Adair, Casey, Clinton, Cumberland, Green, McCreary, Pulaski, Russell, Taylor and Wayne.

Lincoln Trail ADD: Counties include Breckinridge, Grayson, Hardin, Larue, Marion, Meade, Nelson and Washington.

Fall 2005

Pennyrile ADD: Counties include Caldwell, Christian, Crittenden, Hopkins, Livingston, Lyon, Muhlenberg, Todd and Trigg.

*Five Kentucky counties including Jefferson, Fayette, Boone, Kenton and Campbell conduct independent programs.



Contractors used heavy equipment to load up all of the tires collected at the Breckinridge County Tire Amnesty event at the Department of Highways garage in Harned, Ky., in August 2001. The Breckinridge County amnesty brought in 76,000 passenger tire equivalents (truck and tractor tires combined with cars). Division of Waste Management photo



Eighteen participants took part in an introductory GIS software course taught by Demetrio Zourarakis. Photo by the Division of Conservation

Local citizens trained in GIS software

By Demetrio Zourarakis
Division of Conservation

The Kentucky Division of Conservation recently shared its GIS (geographic information systems) expertise during a two-day computer software training course in Madisonville, Ky. A truly cooperative effort, the Hopkins County Conservation District, the Madisonville Tree Board and the Division of Conservation facilitated this introductory course in GIS. This

course, not currently offered except at major universities, provided an excellent forum for technology among the 18 participants, including federal and local agency employees, high-school students, college and university faculty, as well as private sector and citizens' groups.

The short course focused on the use of ESRI®'s ArcView® software for conservation-related programs. The software allows for the easy interaction of state and federal datasets to produce map products and visualizations of conservation issues that can be used for education outreach programs throughout the districts. These products are easily manipulated to show what effect conservation programs have in the real world.

The Division of Conservation has long-standing experience in the use of GIS software with emphasis on natural resource management applications. Examples of ongoing applications of GIS include prime farmland protection through agricultural districts and the Purchase of Agricultural Conservation Easement (PACE) program, Kentucky Landscape Snapshot visualizations, Kentucky Agriculture Water Quality Plans and Kentucky Soil Erosion and Water Quality Cost-Share Fund program analysis.

The training took place at the business computer lab on the Madisonville Community College campus.



Solid waste subsidy for a cleaner environment

Continued from page 5

cabinet receives two increments per year from the Department of Transportation (\$2.5 million in September and \$2.5 million in April), counties and cities also receive two increments in the fall and spring.

"The amount of money each county receives is based on road mileage and population," explained Evans. "In addition, counties must provide a 25 percent 'in kind' match to the funds they receive from the state."

Evans added that the new solid waste statute does not specifically outline what appropriate litter cleanup activities include. The RCLA Branch is working with counties to help develop these plans.

Another portion of HB 174 provides funding to old landfills and illegal dumps. Kentucky DEP Solid Waste Branch Manager Ron Gruzesky estimates that the new environmental remediation fee (the \$1.75 per ton tax increase on garbage generated) will collect nearly \$10 million

each year.

"The statute says that \$5 million of the new fee will go toward the abandoned landfill program," said Gruzesky, who's branch is responsible for the cleanup of more than 600 such sites across Kentucky. "Landfills and transfer stations are required to remit the fees to the Kentucky PRIDE Fund (the endowment created to accept the new tax) on a quarterly basis. Any money left over from the tipping fees will go toward the cleanup of illegal dumps, and the interest on the funds will go for environmental education."

All illegal dumps identified across the state will receive an environmental ranking based on the threat to human health and the environment. Dumps will then be cleaned up in order of priority by the counties that will be reimbursed from the PRIDE Fund. Counties are charged with estimating the cost of cleaning up their dumps, and once a county completes a cleanup, the state will reimburse them

for 75 percent of the cost incurred based on the dump's environmental ranking.

"Much like the roadside litter portion of the law, the statute does not stipulate environmental ranking procedures for illegal dumps," said Evans. "Staff from the RCLA Branch have been working with regulators from the Division of Water to develop criteria for ranking the open dumps. We'll look at factors such as proximity to water sources and schools, as well as the contents of each dump, and whether our samples indicate an elevated threat."

The Kentucky Pride fund will receive its first remittance in April. If you'd like to learn more about the new solid waste law HB 174 log onto the Division of Waste Management Web site at <http://www.waste.ky.gov/programs/rcla/rclahome.htm>.



EPA sets national CAFO rule

By Maleva Chamberlain
Division of Water

“Nationally there are an estimated 1.3 million farms with livestock. About 238,000 of these farms are considered animal feeding operations (AFOs)—agriculture enterprises where animals are kept and raised in confinement. AFOs annually produce more than 500 million tons of animal manure that, when improperly managed, can pose substantial risks to the environment and public health.”

The U.S. Environmental Protection Agency (EPA) included the above statement in background information for a final rule for concentrated animal feeding operations (CAFOs).

The final rule, signed by EPA Administrator Christine Todd Whitman on Dec. 15, 2002, became effective in March 2003 and revises 25-year-old requirements for CAFOs to reflect changes in the industry and to address increasing numbers of water quality problems from CAFOs. Its goals are to improve and protect water quality by controlling runoff from animal confinement and manure storage, preventing catastrophic failure of lagoons and ponds, controlling nutrient-rich runoff from excessive land application and preventing inadequate manure management.

The rule simplifies and clarifies definitions of CAFOs, provides flexibility for each state in implementation, promotes manure management practices, complements U.S. Department of Agriculture efforts and

promotes new technologies. It puts emphasis on large operations while fostering effective voluntary efforts for medium and small CAFOs.

The rule defines an AFO as an operation that

- ◆ confines animals for at least 45 days in a 12-month period and

- ◆ has no grass or other vegetation in the confinement area during the normal growing season.

It further defines a CAFO as meeting the above definition and having a specified number of animals (see charts on opposite page). The Clean Water Act specifically

defines the term “point source” to include CAFOs; therefore, the regulation spells out permitting requirements.

Permitting Requirements

According to the new regulation, all

CAFOs must apply for a NPDES (National Pollutant Discharge Elimination System) permit. Permit exemptions have been eliminated. Permit requirements include development and implementation of a nutrient management plan, which must be developed and implemented by Dec. 31, 2006.

Its goals are to improve and protect water quality by controlling runoff from animal confinement and manure storage, preventing catastrophic failure of lagoons and ponds, controlling nutrient-rich runoff from excessive land application and preventing inadequate manure management.



Nutrient management plans for large CAFOs carry more requirements for production and land-application areas.

There are also record-keeping and reporting requirements and stipulations concerning transfer of manure, litter or wastewater to another person.

For more information visit these Web sites <http://cfpub.epa.gov/npdes/afo/cafofinalrule.cfm>; <http://www.epa.gov/npdes/caforule>; <http://www.epa.gov/ost/guids/CAFO/>; <http://www.epa.gov/agriculture>; <http://www.usda.gov>.

Kentucky's CAFO regulation efforts

On July 25, 1997, Gov. Paul E. Patton placed a suspension on any new or expanded swine permitting. Since then, the Natural Resources and Environmental Protection Cabinet (NREPC) has issued



four different emergency regulations and four different ordinary regulations dealing with various aspects of CAFOs. None of these regulations were approved by legislative committees, nor was any enacting legislation passed during the four intervening legislative sessions.

Legal court and legislative action following promulgation of the most recent regulation in 2001 eventually voided it and prohibited the cabinet from putting forth any regulation that would be substantially the same until adjournment of the 2003 regular session of the General Assembly. However, the Division of Water retained its ability to require permits of CAFOs.

As a result of the new EPA regulation, the division will be required to update its regulations to be in line with federal requirements.

Large CAFO Thresholds

<u>Animal Type</u>	<u>Number of Animals</u>
Dairy cows	700
Veal calves	1,000
Beef cattle	1,000
Swine	2,500 (55 lbs. or more) 10,000 (under 55 lbs.)
Horses	500
Sheep or lambs	10,000
Turkeys	55,000
Chickens, liquid manure	30,000
Chickens, other than a liquid manure system	125,000 (not laying hens) 82,000 (laying hens)
Ducks	30,000 (except liquid manure system) 5,000 (liquid manure system)

Designated CAFOs

An AFO may be designated as a CAFO, regardless of the size of the operation. If the permitting authority inspects the operation and finds that it is adding pollutants to surface waters, it might need a CAFO permit.

OPPOSITE PAGE: *Broilers feed and live inside this poultry house. This farm, and others like it in Kentucky, will be required to adhere to the new regulation that took effect in March.*

LEFT: *Hog barns and a lagoon located in western Kentucky. Cabinet photos*

Medium CAFO Thresholds

<u>Animal Type</u>	<u>Number of Animals</u>
Dairy cows	200-699
Veal calves	300-999
Beef cattle	300-999
Swine	750-2,499 (55 lbs. or more) 3,000-9,999 (under 55 lbs.)
Horses	150-499
Sheep or lambs	3,000-9,999
Turkeys	16,500-54,999
Chickens, liquid manure	9,000-29,999
Chickens, other than a liquid manure system	37,500-124,999 (not laying hens) 25,000-81,999 (laying hens)
Ducks	10,000-29,999 (except liquid manure system) 1,500-4,999 (liquid manure system)

KBEAP assists ready mix concrete industry

Articles by Rose Marie Wilmoth
Air Quality Representative



All-Rite Ready Mix Concrete President Donnie Snow was appointed to the Small Business Air Quality Advisory Panel two years ago. As a member of the panel, he represents small business owners who are subject to the air quality regulatory program. As the owner of ready mix concrete businesses in Florence and Wilder, Ky., he has firsthand knowledge of environmental compliance.

Last year, the Division for Air Quality announced changes in the permitting process for ready mix concrete businesses. As a result, Snow requested that a public information program be provided to educate business owners of these changes.

At Snow's request, the Kentucky Business Environmental Assistance Program (KBEAP) developed a three-prong program to advise ready mix concrete businesses of changing regulatory requirements.

First, with the assistance of the advisory panel and the air quality representative, KBEAP developed a booklet describing environmental compliance requirements that apply to all ready mix concrete facilities.

Next, KBEAP set up a booth at the Kentucky Ready Mix Concrete Association Annual Show in January in Florence, Ky. This provided an opportunity for businesses to obtain more information on environmental compliance on an informal basis. During the annual event KBEAP Director Greg Copley spoke about the services offered by the program.

Then, in February KBEAP held a seminar on environmental compliance at the offices of the Kentucky Ready Mix Concrete Association in Frankfort. Air



Eric Byrd, environmental assessment specialist with the Kentucky Business Environmental Assistance Program (KBEAP), stands in front of the program's display booth that is used at conferences like the Kentucky Ready Mix Concrete Association Annual Show that took place in January. Photo by KBEAP

quality topics included calculating emissions, maintaining haul roads, record keeping and reporting requirements. In addition, a representative from the Small Business Development Center also discussed water and waste management requirements.

As past president of the Kentucky Ready Mix Concrete Association and winner of a 2000 Small Business Air Quality Stewardship Award, Snow took

the lead on using the services of the state's small business assistance program to help his industry with air quality compliance.

Similar services are available to other business groups affected by air quality regulations. For additional information, call KBEAP Director Gregory Copley at (800) 562-2327 or Air Quality Representative Rose Marie Wilmoth at (502) 564-2150. ❖

Panel elects new officers

Jean Watts and Donnie Snow accepted their new positions as chair and vice chair, respectively, at the Small Business Air Quality Panel meeting in January. Panel members elected the duo in a unanimous vote.

Watts is an instructor at Lexington Community College and was appointed to the panel to represent the public at large. She has previously served as chair and has been an active member of the Public Information Committee.

Snow is president of All-Rite Ready Mix Concrete with facilities in Florence and Wilder, Ky. He will be attending a national training program for panel members in Baltimore, Md., this spring. The training is sponsored by the U.S. Environmental Protection Agency.

Outgoing Chair Jon Trout has served as chair and acting chair in the past. He was a leader in developing the Stewardship Award Program and the panel bylaws, and is currently chair of the Regulation Review Committee.

The panel will hold meetings April 28, July 28 and Oct. 7 at the Division for Air Quality, 803 Schenkel Lane, Frankfort, Ky. Agendas are available two weeks in advance by calling (800) 926-8111 or (502) 564-2150. ❖

Workshops teach stream assessment science

By Ken Cooke
Division of Water

How clean is your creek? Is it safe for swimming and fishing?

A series of free workshops will be offered by Watershed Watch that will give participants the necessary tools to answer those questions.

If you would like to learn more about stream ecology, water chemistry and biology, as well as get your feet wet alongside some of the state's leading stream scientists, you are encouraged to sign up for the training.

Participants will be asked to choose and monitor a stream, river, lake, wetland or cave system. Several visits will be made during the summer to that waterway, and data will be collected on its condition.

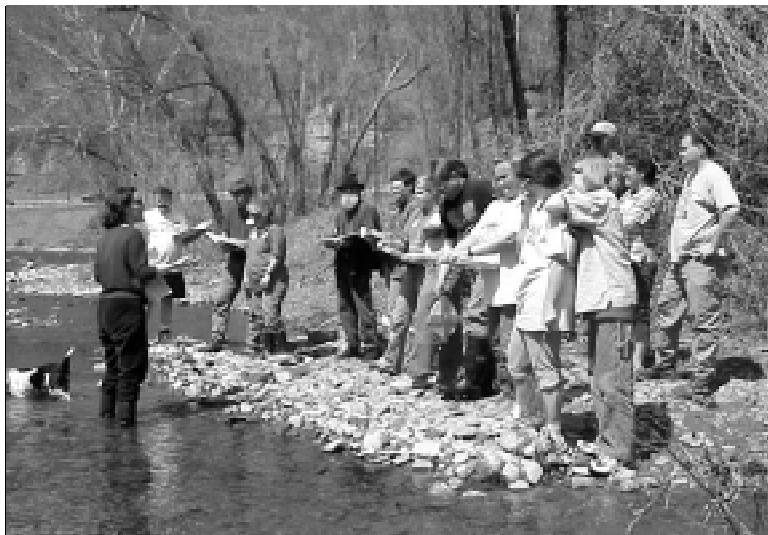
Participants will also be involved in collecting samples for analysis to be delivered to professional labs. The workshops will cover the proper collection, preservation and transport of those samples to a lab.

Data from the project will be returned to the participants so that they can see actual water quality values for their chosen streams. The monitoring data will also be used by state and local agencies, research organizations and cleanup programs such as PRIDE (Personal Responsibility in a Desirable Environment).

If you would like to find out more about the stream assessment project, visit the project's Web site and register online at <http://kywater.org/join.htm>

Select the area of the state that interests you the most, choose a workshop date offered in your area and complete the online registration form on the Web site. You can also call (800) 928-0045 ext. 473 if you have questions.

Watershed Watch is a statewide citizens' monitoring effort to improve and protect water quality by raising community awareness and supporting implementation of the goals of the Clean Water Act.



Jean Watts, Lexington Community College, trains Perry County volunteers in habitat assessment methods. Photo by Ken Cooke

VERA helps revitalize prime development sites

Continued from page 3

Even in its infancy, Kentucky's brownfield program has already received national recognition. The University of Louisville's Papa John's Stadium and the Louisville Riverfront Development Project have each won a Phoenix Award for outstanding brownfield redevelopment projects.

In addition, the U.S. Congress last year enacted a federal law that provides grant money for states to enhance their brownfield programs. Kentucky has applied for \$616,000. This would include funding to continue providing environmental assessments of abandoned and publicly owned properties and to increase brownfields outreach activities. It would also be used to purchase equipment that would improve the cabinet's ability to analyze samples at the property, instead of sending them to a lab. The cabinet may receive confirmation on the grant funding as early as this spring.

For further information on how Kentucky's brownfield program can help recycle properties in your community, contact Herb Petitjean at (502) 564-6716 ext. 268 or at Herb.Petitjean@mail.state.ky.us.



Remember Earth Day

commonly celebrated on April 22.

Did you know that Earth Day was originally proclaimed on March 21, 1970, which is the March equinox and also the first day of spring?

Local farmers and the environment benefit from conservation program

By Jay Nelson
Division of Conservation

The Green River is the most biologically diverse and rich branch of the Ohio River system. The greatest aquatic diversity occurs in a 100-mile section of unhindered river that flows from the Green River Reservoir Dam through Mammoth Cave National Park (the world's longest and most diverse cave system) in southcentral Kentucky. This section of the Green River Watershed includes 917,197 acres in the counties of Adair, Barren, Edmonson, Green, Hart, Metcalfe, Russell and Taylor.

Data indicates that agricultural runoff contributes high levels of sediment, nutrients, pesticides and pathogens to the Green River and Mammoth Cave system. Consequently, there are seven species listed as endangered by the U.S. Fish and Wildlife Service in the Green River system. In addition, the project area also includes several ecosystems recognized as endangered, including native prairies, hardwood savannahs, canebrakes and old-growth deciduous forest.

On Aug. 29, 2001, the U.S. Department of Agriculture (USDA) and the Commonwealth of Kentucky agreed to implement a Conservation Reserve Enhancement Program (CREP) to restore up to 100,000 acres on the Green River. This \$110 million program is the largest conservation program in the history of Kentucky. The USDA will provide \$88 million, the Commonwealth will contribute \$17 million and The Nature Conservancy will contribute \$5 million, offering permanent easements to landowners in addition to CREP contracts over a 15-year period.

CREP is an enhanced version of the USDA Conservation Reserve Program (CRP), which has been the federal government's largest and most comprehensive private-lands environmental improvement program. CRP and CREP help save millions of acres of topsoil from erosion, protect surface and ground waters by reducing runoff and sedimentation, increase wildlife habitat and improve air



ABOVE: *The Green River is rich in aquatic diversity, including 53 species of mussel fauna. It is also home to seven species listed as endangered by the U.S. Fish and Wildlife Service.*



LEFT: *The CREP was implemented to restore 100,000 acres on the Green River. Sowing of native grasses helps save topsoil from erosion. Photos provided by the Division of Conservation*

quality. Because the Green River has been identified as such a special place, partnering agencies felt that the enhanced version of the CRP would be ideal for this watershed area. This "enhancement" is primarily financial, thus directly benefiting the producer/landowner in CREP areas where land practices installed under a CREP contract can pay up to a 100 percent increase over standard CRP rental payments for the same practice. This is an entirely voluntary land "set aside" program, offering enhanced annual rental, cost share and incentive payments that exceed that of CRP. In addition to these payments, landowners may elect to enter this land into a supplemental permanent conservation easement to receive addi-

tional incentive payments. CREP contracts may last from 10 to 15 years, and sign up is continuous within the eight-county CREP region. Practices most commonly utilized in the Green River CREP region include riparian buffers, native grass planting, hardwood tree planting and filter strips.

The first full year of the Green River CREP was a successful one. As with any new program, time was needed to learn the program specifics and adjust workloads accordingly. Producer interest was high, and the program continues to attract interest from local farmers.

Recently, the first annual Green River CREP report was released and reflected 123 signed contracts, totaling 2,721 acres.

An additional 68 contracts, totaling 1,644 acres are being processed for completion.

State partnering agencies have been key in getting Green River CREP off the ground. The program is administered by the USDA, and several state agencies have been critical to its success. The Kentucky Division of Forestry, Kentucky Department of Fish and Wildlife Resources and Division of Conservation have played primary roles in public education, program organization and guidance on land practice implementation. The Kentucky Division of Water has been heavily involved in monitoring organization so that program success may be properly evaluated in the coming years. In addition, The Nature Conservancy of Kentucky is administering supplemental permanent easements on contracts for those who wish to enroll.

Other partners include the USDA Natural Resources Conservation Service, USDA Farm Service Agency, Office of the Governor, soil and water conservation districts, Kentucky General Assembly, Mammoth Cave National Park, Kentucky Soil and Water Conservation Commission and the Kentucky State Nature Preserve Commission. This partnership effort is yet another reason why Green River CREP has set itself apart from previous conservation programs.

If you would like more information on the Green River CREP, contact Jay Nelson, Green River CREP coordinator, Division of Conservation, P.O. Box 730, Edmonton, KY 42129, phone (270) 432-3191 ext. 107 or by e-mail at jay.nelson@mail.state.ky.us



Green River refuge for mussels

By Ronald R. Cicerello
Kentucky State Nature Preserves Commission

The upper Green River is one of the top four rivers in the United States for conservation of freshwater mussels, also known as clams. To appreciate the significance of this distinction, consider that freshwater mussels are found worldwide and more kinds live in the United States than anywhere else in the world.

During the last 200 years, 20 of the 104 species of mussels known from Kentucky have been lost as inhabitants straightened and impounded streams, cleared the land, altered and drained wetlands, introduced competing aquatic animals and polluted the landscape. Of those mussel species remaining, many are rare or are on the verge of extinction. Despite problems associated with pollutants from farms and communities, and altered habitat from a navigation lock and dam and Green River Lake, the upper Green River continues to support much of our remaining mussel fauna. Fifty-three species, 63 percent of those left in Kentucky, live in the upper Green River.

Mussels are important members of stream communities. They live on and in the stream bottom, anchored in place with a muscular foot. Mussels improve water quality as they filter it for food, oxygen and as part of their complicated reproductive process. The presence of a large, diverse and reproductively active mussel fauna in a stream is an indicator of good water and habitat quality.

Historically, mussels paved the bottom of our rivers, and they had a major impact on stream water quality by filter feeding. For example, the non-native zebra mussel is quite numerous in western Lake Erie and Lake St. Claire, where it has greatly cleared the water by filter feeding. Suckers, catfish, muskrats and raccoons relish mussels, and other aquatic animals and plants often colonize their shells. Native Americans once used mussels for food, jewelry, utensils and tools. Today, round beads cut from mussel shells and implanted in oysters result in high-quality pearls cultured in the Orient. Freshwater mussel shells come in a variety of beautiful and intricate shapes, colors and patterns, and are every bit as beautiful as cultured pearls.

The Green River is our best chance to conserve what remains of the mussel fauna. It supports some of the best remaining populations of some globally rare species and remnants of other species that can be saved by captive breeding and habitat improvement. Mussels are a part of our natural heritage and barometers of the health of our streams. The mussels in our streams not only tell us how well our waterways are doing, they also tell us how well we are doing as a society.

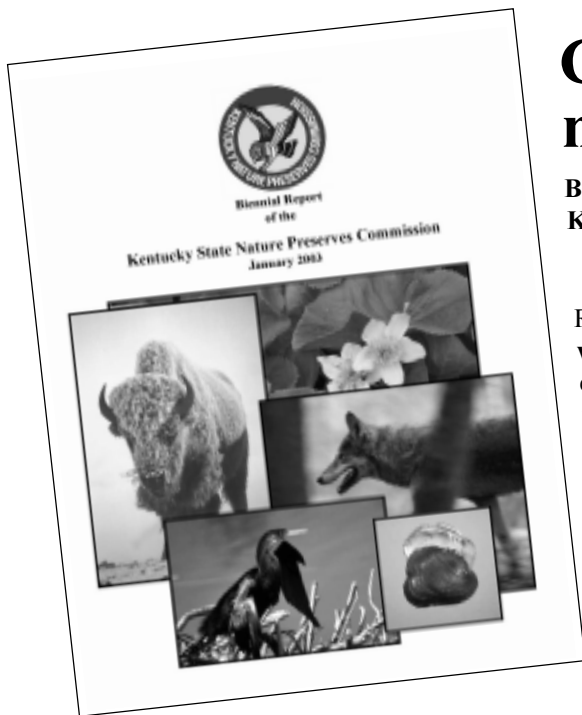


Elktoe (*Alasmodonta marginata*)



Goals and objectives of Green River CREP

- To reduce by 10 percent the amount of sediment, nutrients and pesticides from agricultural sources entering the tributaries and main stem of the Green River and Mammoth Cave system through best management practices designed for that purpose and other conservation practices designed to improve water quality.
- To enhance habitats and populations of wildlife, including those listed as state and federal special concern, rare, threatened and endangered.
- To sustain and restore the composition, structure and function of riparian habitat corridors associated with the Green River and tributary watersheds.
- To reconnect habitat types in order to restore the full range of ecosystem function.
- To establish buffers around sinkholes, targeting 1,000 high-priority sinkholes.
- To sustain and restore nonriparian wetlands.
- To protect and restore subterranean ecosystems.
- To collect, store and analyze data to enhance planning for sustaining the health of the watershed.
- To develop an outreach program targeting all active agricultural producers in the area.
- To utilize native species, including warm season grasses, to the greatest extent possible.



Commission's report highlights natural areas, extinct species

By Cecilia Mitchell

Kentucky State Nature Preserves Commission

The Kentucky State Nature Preserves Commission (KSNPC) 2003 Biennial Report has been completed and is available for viewing on the Internet at <http://www.kynaturepreserves.org/>. The report features the commission's ongoing efforts to preserve the best remaining natural areas, and rarest plants and animals throughout the Commonwealth. It also contains narrative information on the commission's programs and functions, as well as graphics to highlight the agency's accomplishments.

KSNPC Executive Director Donald S. Dott, Jr. encourages the public to visit the Web site and particularly to note the tables identifying state nature preserves and registered natural areas by county. Dott said, "Citizens with these unique natural areas located within their locales are fortunate indeed. However, with only 50 percent of the state inventoried for intact natural communities, there are significant discoveries ahead."

The commission's biennial report cover depicts several species that are now extinct or extirpated from Kentucky to illustrate the plight of rare species in the Commonwealth. Further information on species' status is contained in the report. Due to state budgetary constraints, the commission is unable to publish the report in hardcopy format. However, if you have any comments or questions about the report or the work of the KSNPC, contact the commission at (502) 573-2886 or by e-mail at nrepc.ksnpcemail@mail.state.ky.us.



State agency improves Web site

Fire up your computer and visit the Kentucky Division of Conservation's updated Web site at <http://conservation.ky.gov/>

The Division of Conservation's mission is to provide exemplary leadership in natural resource conservation stewardship for the Commonwealth of Kentucky.

The new and improved Web site provides information on the division's programs, as well as links to other soil, water and resource conservation activities. Not only does the site provide access to programs within the Department for Natural Resources, the cabinet and at the state level but also to other helpful sites throughout the nation.

Click on the [GIS and Soil Survey](#) link and take a look at some digital soil survey maps that can help farmers and other landowners find out the conditions and types of soil they have in their counties. Also, the [Conservation Districts](#) link can provide access to the Web sites of county conservation districts in Kentucky that are online. More information is being added daily. So, make this Web page one of your favorites.

Division Director Stephen A. Coleman encourages everyone to visit the Web site. "We hope you find this resource useful, and we look forward to hearing from you," he said.



EQC 2002 annual report/work plan released

The Kentucky Environmental Quality Commission's (EQC) top priority is to continue to work to strengthen the public role in solving environmental problems in their communities and the state.

The commission will target five areas during 2003: Public Health and the Environment, Sustainable Forestry, Water Quality, Setting State Environmental Goals and Priorities, and Energy and the Environment.

The EQC welcomes input on these meeting topics. Please e-mail EQC@mail.state.ky.us with any comments, suggestions or if your community would like to host an EQC meeting or forum.

Visit EQC's Web site www.kyeqc.net to view the annual report in its entirety.



PRIDE grant money will eliminate illegal dumps

By Cindy Schafer
Office of the Secretary

Cleanup projects will begin very soon across southern and eastern parts of the Commonwealth thanks to 11 grants totaling \$1.4 million awarded through the Eastern Kentucky PRIDE SuperGrant program.

The PRIDE (Personal Responsibility In a Desirable Environment) SuperGrant program helps communities in a 38-county area clean up illegal dumps. The program's objectives are to initiate and implement projects that will improve the quality of our environment and water resources, and thus positively impact the quality of life for Kentucky's citizens.

"These SuperGrant projects will go a long way to clean up messes caused by a few people," said U.S. Rep. Harold "Hal" Rogers, R-Somerset. "Residents of southern and eastern Kentucky have lived with these illegal dumps for years, and the time has come for a change."

Rogers and Natural Resources and Environmental Protection Cabinet Secretary Hank List announced the awards at a press conference in March.

"Cleaning up the dumps is just the first step," List said. "Next, we will work together to make sure that illegal dumpers do not recreate these problems."

Eligible counties, cities and nonprofit organizations can be awarded up to \$1 million to clean up area waterways, illegal dumps or to promote environmental education and awareness.

Eastern Kentucky PRIDE was created in 1997 by Congressman Rogers and the late General James Bickford, secretary of the Natural Resources and Environmental Protection Cabinet.

PRIDE is funded by the National Oceanic and Atmospheric Administration.



BELOW LEFT: In 2002, the Green County Fiscal Court received \$124,000 through the PRIDE SuperGrant program to cleanup this illegal dump on Buck Rub Road. The dump sat on a tributary in the headwaters of the Green River.

BELOW RIGHT: More than 100,000 tires and 5,000 tons of garbage were pulled from the Buck Rub Road dump and disposed of properly with assistance from the Kentucky Natural Resources and Environmental Protection Cabinet. Photos from Eastern Kentucky PRIDE

Recipients of grant awards:

- Adair County Fiscal Court—\$80,000 to clean up the illegal dump in the Old Rock Quarry beside Highway 55 South.
- Breathitt County Fiscal Court—\$237,300 to clean up the Old Town Hill illegal dump.
- Clay County Fiscal Court—\$300,000 to clean up the Chop Bottom illegal dump.
- Green County Fiscal Court—\$75,000 to clean up the Roachville Road illegal dump.
- Knox County Fiscal Court—\$65,000 to clean up the Alex Creek #3 illegal dump.
- Lawrence County Fiscal Court—\$82,500 to clean up the Yellow Creek Road illegal dump on the Tug Fork River.
- McCreary County Fiscal Court—\$100,000 to clean up the two- to three-acre Tunnel Ridge Road illegal dump.
- Perry County Fiscal Court—\$160,000 to clean up a large illegal dump on Hooterville Road.
- Pike County Fiscal Court—\$114,085 to clean up the Lick Creek illegal dump.
- Russell County Fiscal Court—\$85,000 to clean up an illegal dump on McClendon Road in Jabez.
- Taylor County Fiscal Court—\$75,000 to clean up the Lemons Bend illegal dump.



Protecting endangered species in the coalfields

By Richard Wahrer
Department for Surface Mining Reclamation and Enforcement

Today, much of the readily available coal resources has been mined in the eastern United States. With the depletion of reserves located in isolated areas, the more populated, geologically complex areas and environmentally sensitive reserves are now being developed. With the encroachment of proposed mining operations into localized regions with designated and protected streams and high-value fish and wildlife habitat, the consultation process, requirements and approvals from state and federal fish and wildlife agencies for mining to proceed can easily slow and delay the application review process.

At each stage of a surface coal mining operation, adverse impacts to threatened and endangered species can be identified. Clearing and grubbing activities, or the removal of vegetation and soil, can impact a species by loss of food and shelter, habitat fragmentation, loss of travel corridors and direct mortality. The construction of ponds, roads, facilities with blasting and overburden removal may result in distress through noise, light, equipment activity and diminished air quality. The diversion of streams and impoundment of water can lead to losses of surface and ground water as well as a change in water chemistry. Reclamation operations may often lead to a change in topography, drainage and vegetation species.

In 1996, the federal Office of Surface Mining (OSM) and the U.S. Fish and Wildlife Service (FWS) developed an Endangered Species Act (ESA) national policy that all coal-mining states must follow. The policy was designed to streamline the interaction of the state mining regulatory authority (Kentucky Department for Surface Mining Reclama-

tion and Enforcement), OSM and FWS regarding the continuation and approval of surface coal mining and reclamation operations. This policy resulted in a biological opinion (BO) in which it was determined that coal mining operations conducted under properly implemented regulatory programs, and in accordance with the terms and procedures of the BO, would not be likely to jeopardize the continued existence of listed or proposed species, nor result in the destruction or adverse modification of designated or



proposed critical habitats.

Recently, the national headquarters of OSM and FWS selected mining regulatory personnel from Kentucky, Illinois and Utah to develop a nationwide training course on the biological opinion and threatened and endangered species protection in association with coal mining. The class is designed to not only coordinate the consultations needed between mining regulators and fish and wildlife biologists but to bring the actual parties together to initiate specific protection programs in their state.

The Kentucky Department for Surface Mining Reclamation and Enforcement (DSMRE) has required protection and enhancement measures for the Indiana bat (*Myotis sodalis*), a federally endangered species, on or near permit areas, for more than eight years. Because of



ABOVE: As a result of the national policy, protection and enhancement measures include logging schedules to protect the Indiana bat.

LEFT: Blackside dace occurs exclusively in the Upper Cumberland River watershed and is protected by an outstanding state resource water stream designation. Photos by the Department for Surface Mining Reclamation and Enforcement

concerns regarding some of the guidelines proposed by state and federal fish and wildlife agencies and the need to better address unique mining permit areas, the DSMRE initiated discussions with the Kentucky Department of Fish and Wildlife Resources and the FWS to design a more effective protection and enhancement plan for this species. This resulted in the generation of the document, "Guidelines for the Development of Protection and Enhancement Plans for the Indiana Bat—Nov. 1, 2000." It has been distributed to the coal industry as well as biological consultants. Protection and enhancement measures for this species include specific logging schedules to prevent any "taking" and reclamation plans that emphasize reforestation.

Another endangered species, the blackside dace (*Phoxinus cumberlandensis*), occurs exclusively in the Upper Cumberland River watershed

Continued on page 19

Winter weather doesn't dampen poster contest

By Kerry Holt
Office of the Secretary

A nasty flu outbreak, repeated days of snowfall and a near crippling ice storm have caused some Kentucky schoolchildren to miss upwards of 15 days in the classroom. With such an overwhelming amount of absences officials with the Natural Resources and Environmental Protection Cabinet (NREPC) thought the annual Commonwealth Cleanup Week poster contest could be a lost cause. With less instructional time and absent students it seemed many schools would have to pass on this year's competition. However, when the final results were tallied organizers were shocked to learn that more than 80 students from 42 counties were able to enter. That's several more participants than years past.

Students from grades 1-8 were invited to participate in the art contest, which is in its fifth year. Entries were divided and judged according to age groups: grades 1-2, grades 3-5 and grades 6-8. A panel of blue-ribbon judges based their decisions



Mary Rachel Hobgood of Webster County is the winner for the 3rd-5th grade age group. Mary Rachel attends Dixon Elementary School, where she is a fifth grader. Her entry entitled "Spring clean Kentucky all around the state" takes a tour of the Commonwealth and depicts cleanup events at various tourist attractions including My Old Kentucky Home, the State Capitol and Churchill Downs.

For the 6th-8th grade category, the winner is Ben Ambrose of Jessamine County. He is a student at East Jessamine Middle. Ben's poster features dancing trash as cups, soda cans and paper plates mambo their way into the nearest garbage

The contest promotes Commonwealth Cleanup Week, a statewide event held each year during the fourth week in March. During this week volunteers join state and local government workers to remove litter from roadsides, illegal dumps and waterways. For more information about Commonwealth Cleanup Week or next year's poster contest visit <http://www.environment.ky.gov/nrepc/cabinet/cleanuphome.htm>

The NREPC would like to thank Dr. Carol Hanley and agents from the Kentucky Cooperative Extension Service for their help in distributing poster contest materials as well as their assistance with the judging and collection of the completed posters. Also a very special thanks to Touchstone Energy/East Kentucky Power for their continued financial support of the printing costs for the poster contest materials.



*1st-2nd Grade Winner
Kelly Brown, Bell County*

on artistic skill, neatness and comprehension of the environmental education subject matter. From those 80-plus entries the judges selected three winners to represent their collective age groups.

Representing grades 1-2 is Kelly Brown of Rightfork Elementary in Bell County. Her drawing featured the state of Kentucky surrounded with floating hearts and the slogan "Shower our state with love."



*3rd-5th Grade Winner
Mary Rachel Hobgood, Webster County*

can.

Kelly, Mary Rachel and Ben's schools will all receive a \$1,500 environmental education grant for participating in the contest. NREPC Secretary Hank List and First Lady Judi Patton were on hand to honor the trio at a special reception in Frankfort. The students were presented with a T-shirt, Certificate of Achievement and a \$150 U.S. Savings bond.



*6th-8th Grade Winner
Ben Ambrose, Jessamine County*

42 counties that participated:

Bell, Boone, Boyle, Bullitt, Caldwell, Clark, Clinton, Crittenden, Daviess, Edmonson, Elliott, Garrard, Green, Greenup, Hardin, Jefferson, Jessamine, Johnson, Kenton, Knott, Letcher, Lewis, Logan, Magoffin, Marshall, Mason, McCracken, Mercer, Monroe, Morgan, Muhlenburg, Nelson, Ohio, Pendleton, Perry, Pike, Pulaski, Russell, Warren, Wayne, Webster and Woodford.

EPA proposes water quality standards for Kentucky

By Maleva Chamberlain
Division of Water

The U.S. Environmental Protection Agency (EPA) proposed a water quality standards regulation establishing implementation methods for an anti-degradation policy for certain waters in the Commonwealth of Kentucky.

The EPA was required to propose a revised regulation because in 2000 it disapproved this portion of Kentucky's water quality standards regulations. The proposal includes:

- √ requirements for Kentucky to maintain and protect the quality of high-quality waters consistent with the Clean Water Act.

- √ a definition of high-quality waters as any surface water identified by the Commonwealth whose quality is better than that needed to support fish, shellfish and wildlife and recreation in and on the water.

The proposal also identifies the process for assessing the need to lower the quality of high-quality waters that includes:

- √ providing for public participation and intergovernmental coordination.

- √ evaluating the need for the discharge in light of effective pollution prevention alternatives, enhanced treatment techniques or other alternatives that would further limit the extent to which water quality is lowered.

- √ determining that lower water quality supports important economic benefits to the local community or protection of public health.

The EPA's proposal laid out a framework and viable options in which Kentucky must carry out anti-degradation reviews. However, the proposal left most details of implementation up to the state.

The EPA held a public hearing concerning the proposed standards on Jan. 23, and the comment period ended March 14. The Natural Resources and Environmental Protection Cabinet,



environmental groups and the regulated community were expected to provide extensive comments.

Kentucky will be initiating its own triennial review of water quality standards regulations later this spring. If possible, the state will promulgate an anti-degradation regulation that EPA can approve. ❖

Protecting endangered species in the coalfields

Continued from page 17

though critical habitat for this species has not been designated. The presence of this species triggers an outstanding state resource water stream designation by the Kentucky Division of Water, which has its own protection regulations. Not only is a 100-foot stream buffer zone required (no in-stream disturbances), but strict effluent limitations upon the receiving designated stream and its tributaries is enforced during the permit term.

Due to the cooperation of the state and federal fish and wildlife agencies and the DSMRE species protection plans, no coal permit has been denied in Kentucky on the basis of the presence of a threatened or endangered species. This has insured the protection of both the species and the habitat needed to insure future survival. ❖

Awards

State workers receive special recognition

By Cindy Schafer
Office of the Secretary

Each year, the Natural Resources and Environmental Protection Cabinet (NREPC) honors a number of its employees for exemplary performance. These outstanding employees are nominated by their peers for their dedication to the cabinet's mission—protecting and enhancing Kentucky's natural resources by providing environmental leadership and expertise, shaping a vision for Kentucky's ecological future and serving as a bridge to link the state's citizens, government and businesses, while monitoring environmental trends and anticipating needs.

In February, seventeen employees were recognized and presented engraved plaques by NREPC Secretary Hank List (bottom row, far right) at a special reception held at the Berry Hill Mansion in Frankfort. Listed in alphabetical order are the cabinet's Outstanding Employees for 2001:

Veda Aldridge
Roy H. Boggs
John L. Castanis
Prabhu R. Deshetty
Connie L. Downey
Gregory T. Guess
Kevin L. Howard
Martin R. Luther
Donna G. McClanahan

Donald O. Newell
Harold D. Powell
Timothy D. Smith
Jennifer Smock
Larry C. Taylor
Marjorie E. Williams
Pamla A. Wood
Kathy S. Yeary



Youth summit to focus on smart growth

By Lillie Cox
Division for Air Quality

The month of May marks the beginning of an annual opportunity for Kentucky's high-school students to learn how their communities grow and how an informed citizen's participation in community planning can foster economic development, promote a sense of community and insure a clean and beautiful environment for our cities, towns and countryside.

The first annual Youth Environmental Summit will be held May 13 at the beautiful and historic Midway College in Woodford County.

High-school students from across the Commonwealth will moderate sessions, hear nationally known speakers, make presentations based on studies and projects completed in their communities, present their visions for the communities in which they live and lead small discussion groups.

The discussion groups will include students, local and

state officials, representatives of business and industry and representatives of the environmental community.

Middle- and high-school teachers from across the Commonwealth received training during February on Visual Pollution and Smart Growth. This training will be put to good use when 300 students converge on Midway Campus for the May summit.

Future youth summits will address the following issues:

- ◆ Community growth and water quality;
- ◆ Community growth, transportation and air quality;
- ◆ Community growth and the preservation of farmland, natural areas and historic properties; and
- ◆ Community growth and environmental health.

For more information contact the Kentucky Environmental Education Council at (800) 882-5271.



Division of Forestry crews clean up after ice storm

By Cindy Schafer
Office of the Secretary

Normally faced with the perils of fire and extreme heat, Kentucky Division of Forestry employees took on a different type of devastation—the ice storm of February 2003.

Dodging ice-laden tree branches and power lines, the forestry crews helped to clear the debris-filled streets of Anderson, Woodford, Fayette and Carter counties as residents struggled to stay warm for days without electricity.

A total of 75 crew members, working in groups of three, sawed limbs and stacked branches. They represented eight division districts, from as far away as Fulton County in western Kentucky.

ABOVE RIGHT: *Lance Johnson, a McCreary County ranger from the Pineville district office, trimmed weak or broken branches overhanging county rights of way.*

RIGHT: *Breathitt County ranger David Fletcher, Hazard district office, sawed up downed limbs.* Photos by Gwen Holt



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